irt surveys

Thermographic Survey

clarity of vision

Before & After thermal images of Window and Door Details

Thermographic Survey Report

Prepared for:

Mr. Mark Huelin
Airtight Solutions Ltd.
Shenn Valley
Ballakaighen
Peel
Isle of Man
IM5 2AH

Tel. 07957 381 068

Prepared by:

Mr. Alan Little B.Sc. (Hons)
IRT Surveys Ltd.
Units D & E
Software Media Centre
Technology Park
Dundee
DD5 1TY

Tel. 01382 598 510
Fax. 01382 598 533

Explanation of Images.

The following report contains several colour infrared images which can be difficult to understand.

The equipment we use sees heat instead of light and automatically allocates various colours to different temperatures. For example red is hot and blue is cold. The hottest colour being white and the coldest being black.

There are several factors that can lead to miss-interpretation of a thermal image. Different materials reflect energy in different ways, such as glass or highly polished metals. Where there are materials like glass, the information recorded must be ignored, as it is not an accurate temperature.

A well insulated roof or building in good condition should show consistent temperatures and colours across its surface.

Terms of Reference.

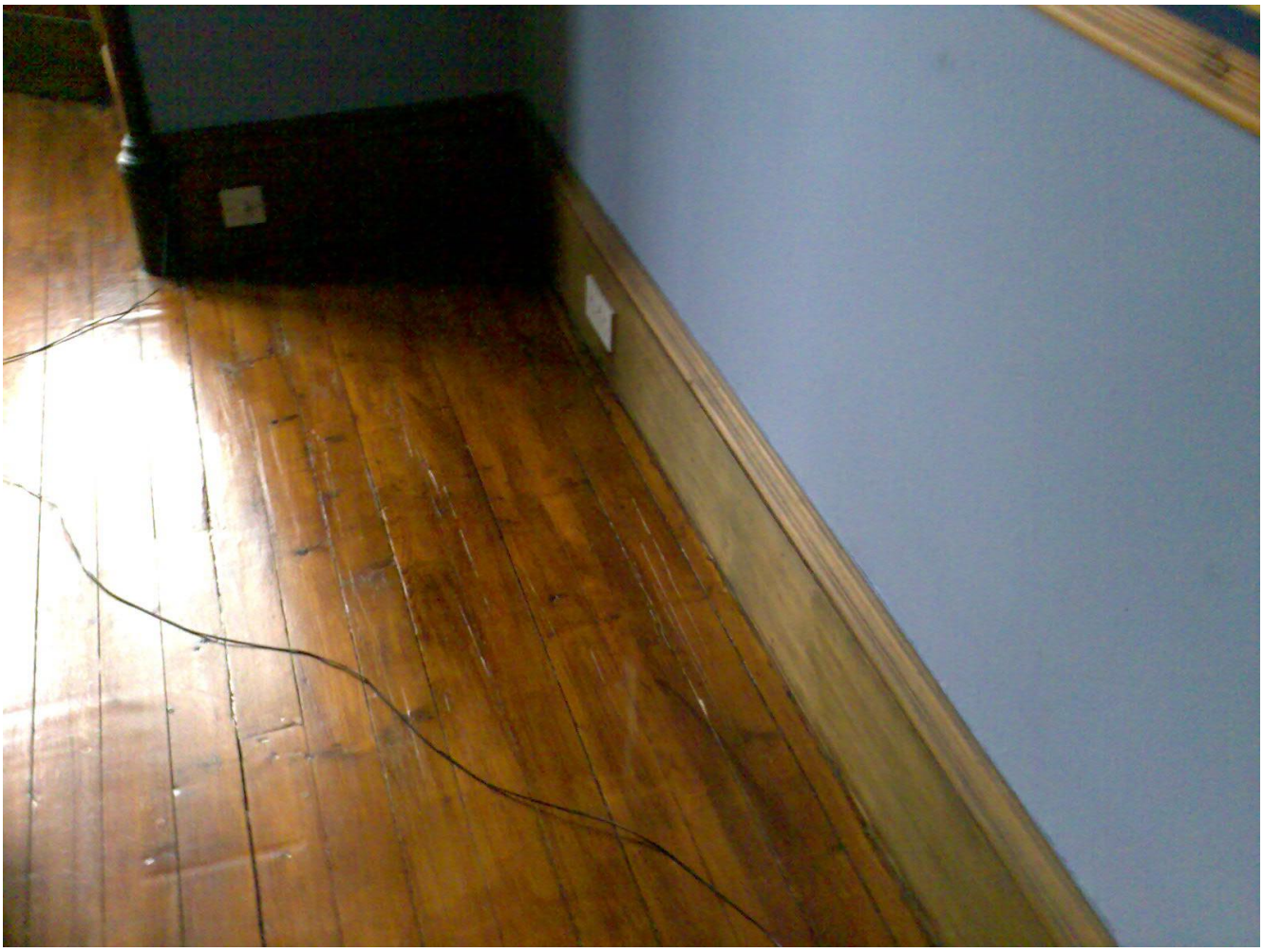
This investigation involved the use of non-destructive methods and therefore the majority of the findings presented within this report are the result of the measurement and interpretation of electromagnetic signals. This report represents the best professional opinion of the authors. Every effort has been made to ensure that the results are accurate and reliable. However, as with other indirect methods there is a possibility of localised inconsistencies and inaccuracies within the results.

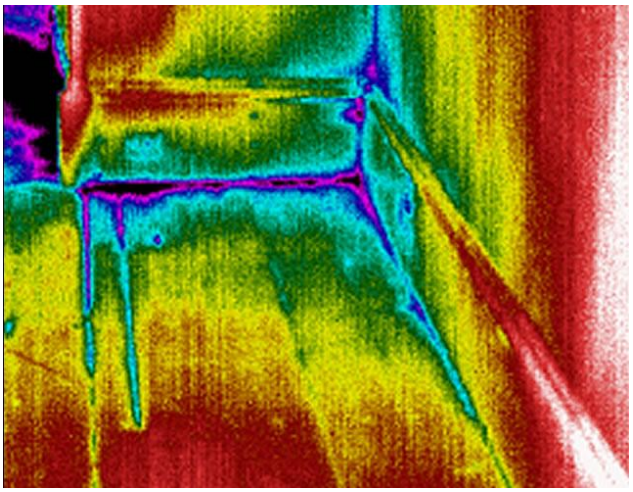
This final report supersedes any previous reports by IRT surveys, whether written or oral and completes the work commissioned.

Summary.

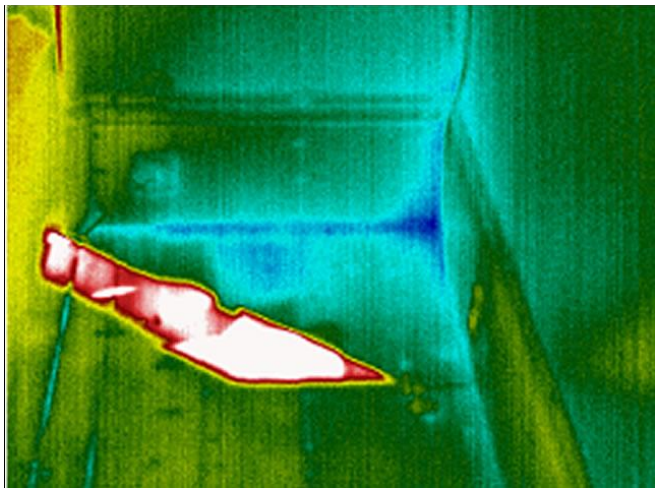
Thermographic images were taken of window and door details before and after the application of Quatro seal.

Before images show cool air influx in dark blue. Well insulated/sealed window and door details should reveal reasonably consistent temperatures and colours across their surfaces.





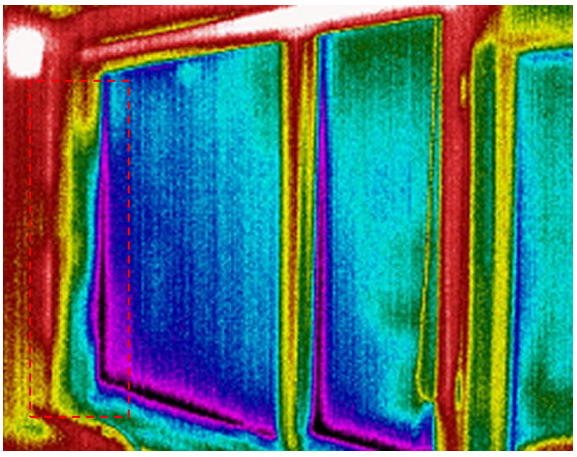
Before Quatro seal



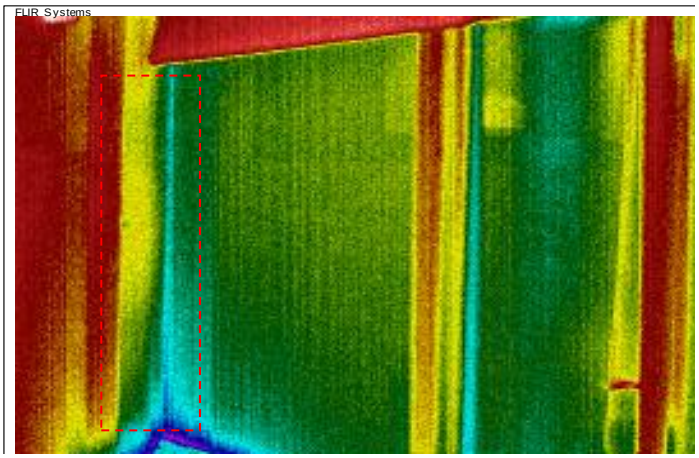
After Quatro seal

Analysis

Areas of cool air influx can be seen in the before image in dark blue and black colours at the skirting and floorboard detailing. The after image revealed far more consistent temperatures and colours. (The red/white warm area on the floor is caused by sunlight warming the floor)



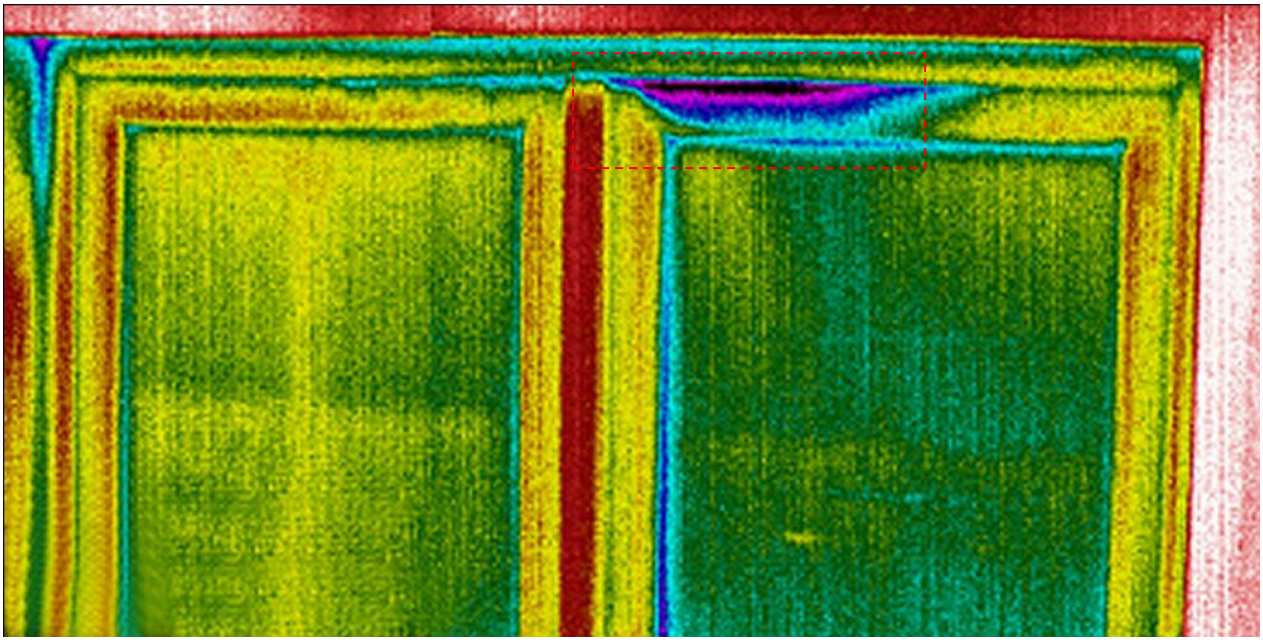
Before Quatro seal



After Quatro seal

Analysis

The window detailing at the left side of this window showed cooler temperatures caused by cold air influx. This can be seen as dark blue and black colours at the left edge of the window frame. The after images show a much more consistent temperature and colour.



Quatro seal present

No Quatro seal

Analysis

The above image shows French doors where the door on the left has been sealed using quarto seal and the door on the right has the original rubber seals. We can clearly see cool air entering at the original door seal in dark blue and purple colours.